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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,147	03/10/2004	Gary Peter Moscaluk	CYP-0403	4329
25007	7590	07/21/2005	EXAMINER	
LAW OFFICE OF DALE B. HALLING, LLC 655 SOUTHPOINTE COURT, SUITE 100 COLORADO SPRINGS, CO 80906			NGUYEN, HIEP	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/797,147

Applicant(s)

MOSCALUK ET AL.

Examiner

Hiep Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-18 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

The amendment filed on 05-18-05 has been received and entered in the case. New ground of rejections necessitated by the amendment is set forth below.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 7-10, 12-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukushi et al. (USP. 6,836,426).

Regarding claim 1, figure 8 of Fukushi shows a signal transmission amplifier circuit, comprising:

- a transmission gate (N7, P7) having an input coupled to an input signal;
- a cross-coupled latch (P4, P5, N4, N5) coupled to an output of the transmission gate and having a signal output: and
- a reference generating circuit (2, 3, 4, 5 and 7) coupled to the cross coupled latch through a second transmission gate (N6, P6).

Regarding claims 2 and 3, the circuit of claim 1, further including a strobe signal (BLX) coupled to the transmission gate and to the cross coupled latch.

Regarding claim 4, the Schmitt trigger is element (7) or (8).

Regarding claim 7, signal (BLX) is a single ended input.

Regarding claim 8, the input of the transmission gate is coupled to a transmission line.

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Regarding claim 9, figure 8 of Fukushi shows a signal transmission amplifier circuit, comprising:

- a transmission gate (N6, P6) having an input; and

- a latch (P4, P5, N4, N5) coupled to an output of the transmission gate having a reference input; and

- a second transmission gate (N7, P7) coupled to the reference input.

Regarding claim 9, the latch is a cross coupled latch.

Regarding claim 10, wherein the transmission gate (N6, P6) is coupled to a strobe signal and an inverted strobe signal.

Regarding claims 12-14, when the input signal has a voltage that is less than the threshold voltage of the PMOS transistor (P5) included in the latch (P4, P5, N4, N5), the PMOS transistor is turned on and the input signal is latched. The cross-coupled latch is coupled to a strobe signal (BLX).

Regarding claims 15, 16 and 18, figure 8 of Fukushi shows a signal transmission amplifier circuit, comprising:

- a cross coupled latch (P4, P5, N4, N5); and

- a reference generating circuit (2, 3, 4, 5 and 7) coupled to the cross coupled latch through a transmission gate (N6, P6). The strobe input signal is the drain of transistor (P4).

Regarding claim 17, the transmission gate is (N7, P7).

Claims 1-3, 7-13 and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Eitrheim et al. al. (USP. 5,359,232).

Regarding claim 1, figure 2 of Eitrheim shows a signal transmission amplifier circuit, comprising:

- a transmission gate (24) having an input coupled to an input signal;

- a cross-coupled latch (28) coupled to an output of the transmission gate and having a signal output; and

- a reference generating circuit (19, 20) coupled to the cross coupled latch through a second transmission gate (26).

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Regarding claims 2 and 3, the strobe signal is signal (CLKIN) coupled to the transmission gate (24) and to the cross-coupled latch.

Regarding claim 7, input signal (output of 22) is a single ended input.

Regarding claim 8, the input of the transmission gate is coupled to a transmission line.

Regarding claim 9, figure 2 of Eitrheim shows a signal transmission amplifier circuit, comprising:

- a transmission gate (24);

- a latch (28);

- a second transmission gate (26).

Regarding claims 10 and 11, wherein the transmission gate (24) is coupled to a strobe signal (CLKIN) and an inverted strobe signal.

Regarding claims 12 and 13, when the input signal has a voltage that is less than the threshold voltage of the PMOS transistor inherently included in the latch (28), the PMOS transistor is turned on and the input signal is latched. The cross-coupled latch is coupled to a strobe signal (CLKIN).

Regarding claims 15 and 16, figure 2 of Eitrheim shows a signal transmission amplifier comprising:

- a cross coupled latch (28); and

- a reference generating circuit (19, 20) coupled to the cross coupled latch through a transmission gate (26). The strobe input signal is signal (CLKIN).

Regarding claim 17, the transmission gate is circuit (24).

Regarding claim 18, the transmission gate is circuit (26).

#### ***Allowable Subject Matter***

Claims 5,6, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5,6, 19 and 20 are objected to because the prior art of records (USP. 6,836,426; 5,359,232) fail to teach or suggest a signal transmission amplifier circuit comprising a reference generating circuit including a latch as called for in claims 5 and 19.

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***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references are cited as of interest because it shows some common-mode detection circuit analogous to the claimed invention.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep Nguyen whose telephone number is (571) 272-1752. The examiner can normally be reached on Monday to Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hiep Nguyen

07-19-05



**MY-TRANG NUTON  
PRIMARY EXAMINER**